OTIS ELEVATOR COMPANY

OTIS

HAND POWER ELEVATORS

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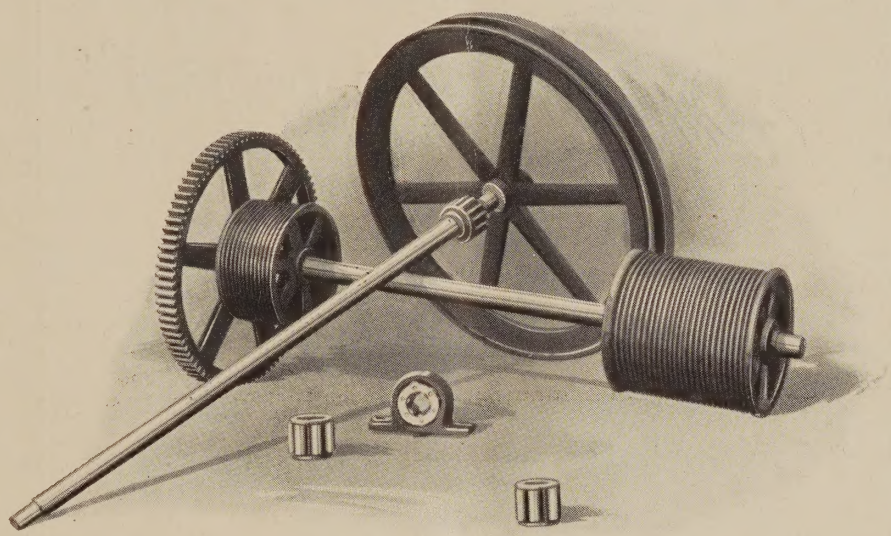

OTIS

ELEVATOR COMPANY

OFFICES IN ALL PRINCIPAL CITIES

THE simplicity of all *Otis Hand Power Elevators* makes their erecting easy and economical.

The working drawings and instructions furnished with each machine are so simple and complete that anyone at all mechanically inclined will experience no difficulty in erecting.

Classics
AT
2180
.O64
1910a

INTRODUCTION

IT has been the aim of the Otis Elevator Company for many years to produce the highest grade of Hand Power Elevators at a cost low enough to place these machines within the means of everyone whose business demands a hoist of this type.

In submitting the several different types of Hand Power Apparatus shown on the succeeding pages of this catalog, we wish to call particular attention to the *Steel Constructed Types* which are the Otis Standard and are explained in detail on the following pages.

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Standard Sizes

ONE of the first questions which confronts a prospective elevator purchaser is the size of platform needed to meet his requirements. This can be determined by consulting our list of *"Standard Sizes,"* and arranging a hatchway to suit the selected platform.

Standard Size platforms are manufactured in large quantities and placed in stock, thereby reducing the cost of production to a minimum. This not only gives the purchaser the benefit of a lower cost, but secures for him the advantage of immediate shipment.

Use the Standard sizes in all cases when it is possible and secure the advantages mentioned above.

Special sizes at advanced prices.

List of Standard Sizes

No. 1 Center Lift

PLATFORM			HATCHWAY		
Postwise		Front to Back	Postwise		Front to Back
3′ 0″	x	3′ 0″	4′ 1″	x	3′ 2″
4′ 0″	x	4′ 0″	5′ 1″	x	4′ 2″
4′ 0″	x	5′ 0″	5′ 1″	x	5′ 2″

No. 4-A

4′ 0″	x	4′ 0″	5′ 1½″	x	4′ 2″
4′ 0″	x	5′ 0″	5′ 1½″	x	5′ 2″
4′ 0″	x	6′ 0″	5′ 1½″	x	6′ 2″
5′ 0″	x	5′ 0″	6′ 1½″	x	5′ 2″
5′ 0″	x	6′ 0″	6′ 1½″	x	6′ 2″
5′ 0″	x	7′ 0″	6′ 1½″	x	7′ 2″
6′ 0″	x	6′ 0″	7′ 1½″	x	6′ 2″
6′ 0″	x	7′ 0″	7′ 1½″	x	7′ 2″
6′ 0″	x	8′ 0″	7′ 1½″	x	8′ 2″
7, 0″	x	7′ 0″	8′ 1½″	x	7′ 2″

No. 2 Center Lift

4′ 0″	x	5′ 0″	5′ 1″	x	5′ 2″
4′ 0″	x	6′ 0″	5′ 1″	x	6′ 2″
5′ 0″	x	5′ 0″	6′ 1″	x	5′ 2″
5′ 0″	x	6′ 0″	6′ 1″	x	6′ 2″
5′ 0″	x	7′ 0″	6′ 1″	x	7′ 2″
6′ 0″	x	6′ 0″	7′ 1″	x	6′ 2″
6′ 0″	x	7′ 0″	7′ 1″	x	7′ 2″
7′ 0″	x	7′ 0″	8′ 1″	x	7′ 2″

No. 1 Carriage Elevator

6′ 0″	x	12′ 0″	7′ 0″	x	12′ 3″
6′ 0″	x	14′ 0″	7′ 0″	x	14′ 3″
7′ 0″	x	14′ 0″	8′ 0″	x	14′ 3″

No. 2 Carriage Elevator

6′ 0″	x	12′ 0″	7′ 0½″	x	12′ 3″
6′ 0″	x	14′ 0″	7′ 0½″	x	14′ 3″
7′ 0″	x	14′ 0″	8′ 0½″	x	14′ 3″
7′ 0″	x	16′ 0″	8′ 0½″	x	16′ 3″
8′ 0″	x	16′ 0″	9′ 0½″	x	16′ 3″
8′ 0″	x	18′ 0″	9′ 0½″	x	18′ 3″

No. 3 Carriage Elevator

8′ 0″	x	16′ 0″	9′ 0¾″	x	16′ 3″
8′ 0″	x	18′ 0″	9′ 0¾″	x	18′ 3″
8′ 0″	x	20′ 0″	9′ 0¾″	x	20′ 3″
9′ 0″	x	18′ 0″	10′ 0¾″	x	18′ 3″

No. 1 Basement Elevator

3′ 0″	x	4′ 0″
4′ 0″	x	4′ 0″
5′ 0″	x	4′ 0″
6′ 0″	x	4′ 0″
7′ 0″	x	5′ 0″

As these sizes vary with local conditions, this information will be furnished on application.

No. 2 Basement Elevator

3′ 0″	x	4′ 0″
4′ 0″	x	4′ 0″
5′ 0″	x	4′ 0″
6′ 0″	x	4′ 0″
7′ 0″	x	5′ 0″

As these sizes vary with local conditions, this information will be furnished on application.

No. 1 Center Lift Hand Power Elevator

THE No. 1 Hand Power is especially adapted for light loads and small platform sizes. The rope or pull wheel may be placed at either the front or at the side, thus making it possible to install this type in either an open or enclosed hatchway.

We strongly recommend the sidepost arrangement shown in illustration. When conditions are such that the posts must be placed in the corners of hatchway, we can furnish special construction, for which drawings are necessary in each case to show size of hatchway required.

Special attention is called to the Steel Framed Platform and "Power" Style Safety Device furnished with all Otis Hand Power Elevators. These features differ slightly on the various types as conditions demand.

Specifications for the above are as follows:

Lifting Machine
- Rope or Pull Wheel
- Gearing and Shafts
- Hoisting Sheave
- Roller Bearings
- Steel Band Brake

Overhead Frame

Counterweights
- Adjustable

Platform—Steel Frame
- Safety Device

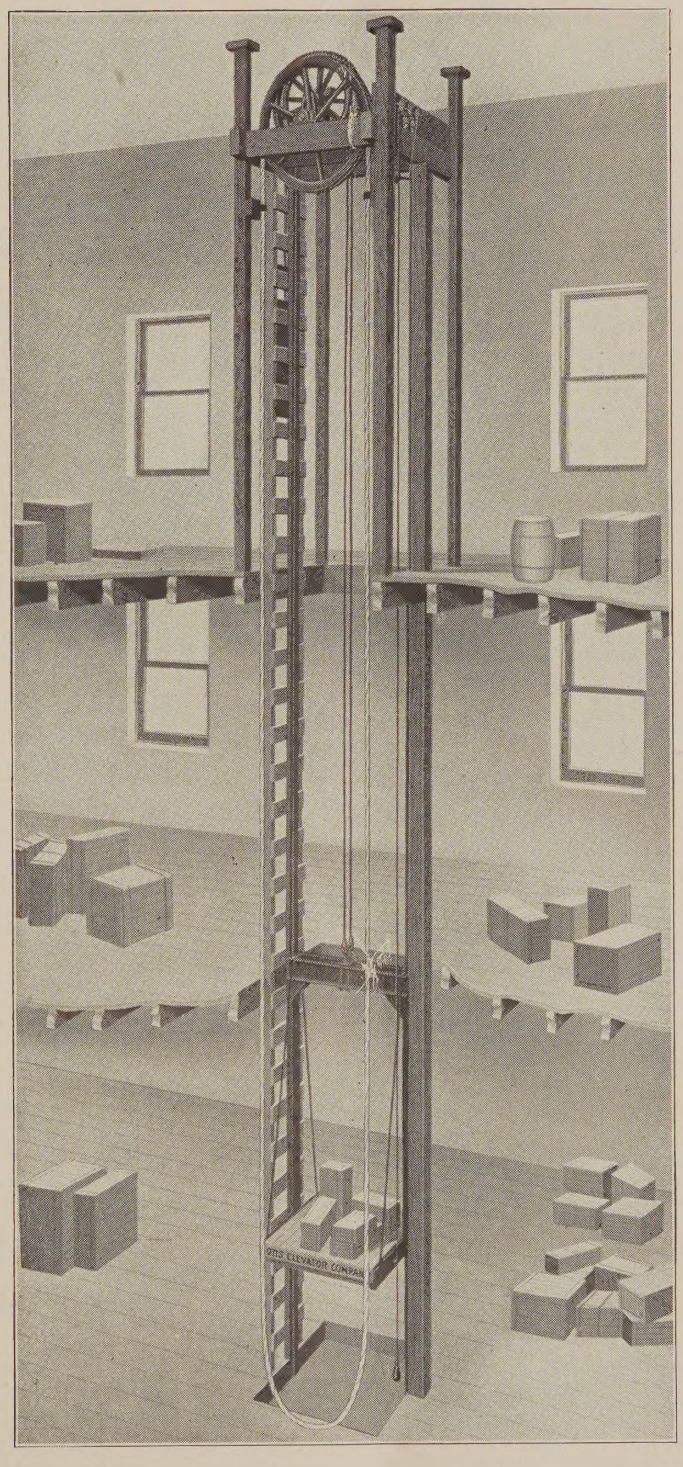
Guide Strips
- Maple

Ropes
- Two ½" Iron Lifting Cables
- One 1⅛" Manila Hand Rope
- One ½" Brake Rope

We furnish complete drawings for erecting.

No. 1 Center Lift Hand Power Elevator

Capacities 500 and 1000 lbs.



STANDARD SIZES

Postwise		Front to Back	Postwise		Front to Back	Postwise		Front to Back
3′ 0″	x	3′ 0″	4′ 0″	x	4′ 0″	4′ 0″	x	5′ 0″

No. 4-A
Hand Power Elevator

THE No. 4-A Hand Power is our "Best Seller" and well deserves the great popularity to which it has attained. This machine cannot be used in an enclosed hatchway, nor can it be arranged for "corner post", nor for pull wheel in front. If, however, these rather infrequent features are not required, this machine will be found to be absolutely the best and most economical Hand Power Elevator ever built for the handling of general merchandise. It is simplicity itself to erect (another economical feature) and its easy running qualities and durable construction have met with ever-growing favor.

If you wish to know how low a high-class elevator can be sold write for prices of the No. 4-A.

Specifications for the above are as follows:

Winding Machine
- Rope or Pull Wheel
- Shafts and Gearing
- Iron Drums
- Roller Bearings
- Brake

Supports for Winding Machine

Counterweights
- Adjustable

Platform—Steel Frame
- Safety Device

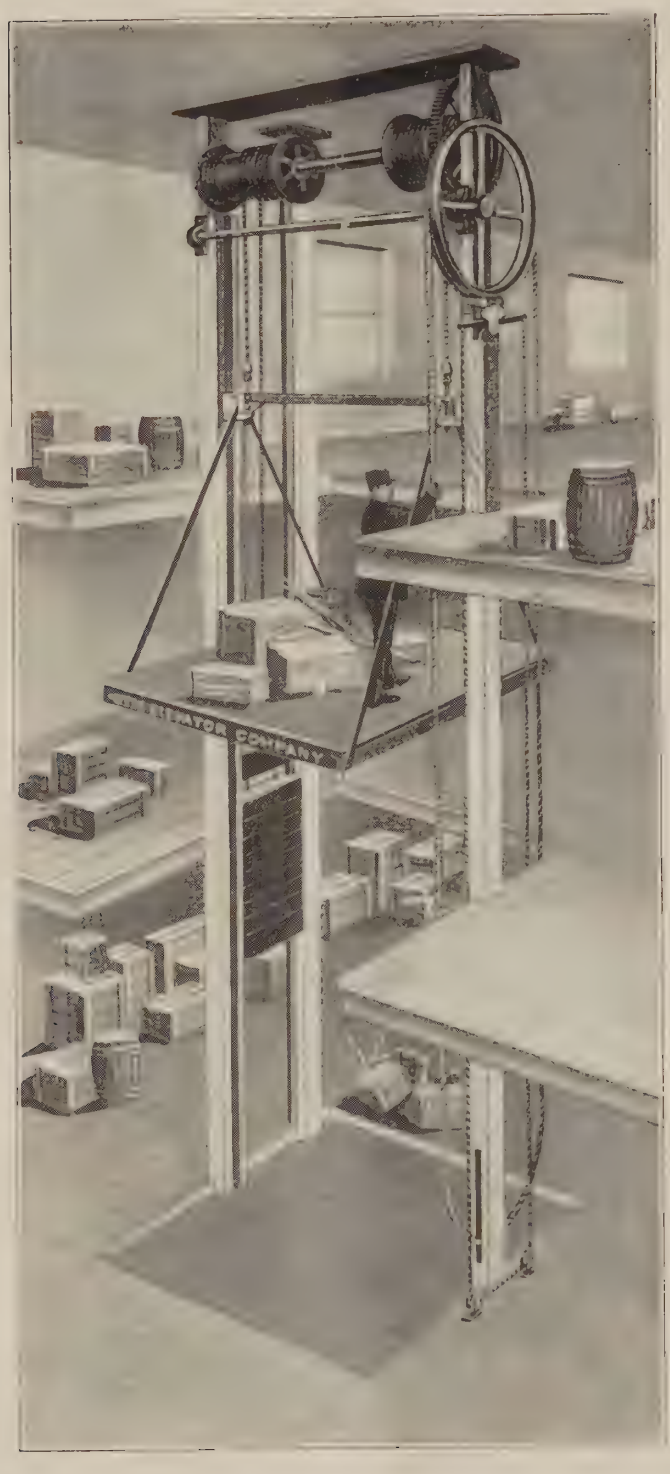
Guide Strips
- Maple

Ropes
- Two ½" Iron Lifting Cables
- One ½" Iron Weight Cable
- One 1⅛" Manila Hand Rope
- One ½" Brake Rope

We furnish complete drawings for erecting.

No. 4-A Hand Power Elevator

Capacities 1500, 2000, 2500 lbs.



STANDARD SIZES

Postwise		Front to Back
4′ 0″	x	4′ 0″
4′ 0″	x	5′ 0″
4′ 0″	x	6′ 0″

Postwise		Front to Back
5′ 0″	x	5′ 0″
5′ 0″	x	6′ 0″
5′ 0″	x	7′ 0″
6′ 0″	x	6′ 0″

Postwise		Front to Back
6′ 0″	x	7′ 0″
6′ 0″	x	8′ 0″
7′ 0″	x	7′ 0″

Some Details

IN order to prove the Otis claim of superiority and in line with the policy of furnishing "The maximum value for a dollar" we are showing a series of detailed parts which will clearly demonstrate the design, workmanship and method of constructing Otis Standard Hand Power Elevators.

Figure 1. 4-A Platform.

Platform

ALIVE to the fact that platforms made of wood do not always give the best of satisfaction, we have designed a *Steel Frame Car* (figure 1) with no wood used in this construction except for the flooring

Further, this car is equipped with a type of safety similar to that used on Electric and other "Power" Elevators, thus making a much more effective device than the old style of Beam Spring Safety.

Figure 2
Bottom View of Platform

In figure 2 a bottom view of the platform is shown, giving a clear idea of the safety dogs, the method of bracing, and the general strong construction.

Guide Posts and Strips

OWING to the fact that guide post stock can be obtained from any lumber yard, the customer often prefers to purchase his posts locally and save the freight charges.

A solid post of proper size can be used, but we strongly recommend the use of a compound post as shown in Figure 3, in order to eliminate warping and twisting. Although the cost of this post is greater than the old style solid one, we furnish compound posts in all cases, when posts are ordered, thus assuring the purchaser of absolutely true runways for his platform.

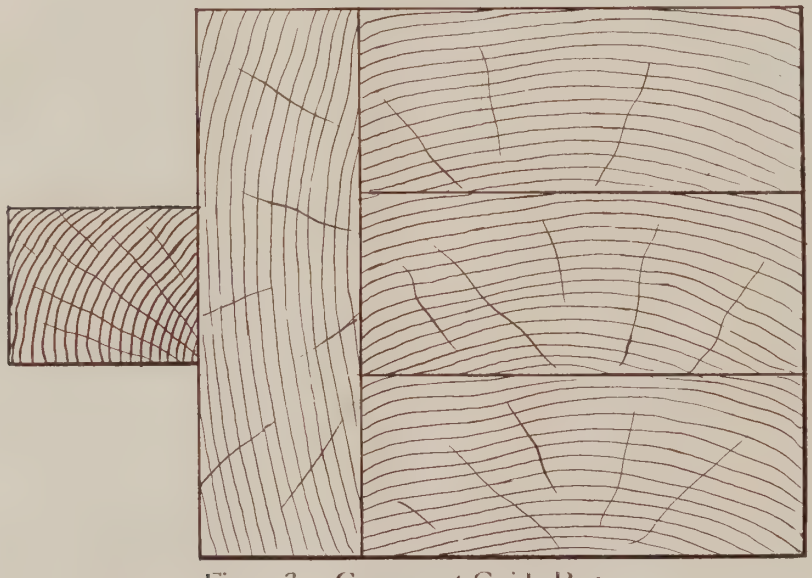


Figure 3. Compound Guide Post.

The guide strips are made of well-seasoned kiln-dried maple, being tongued, grooved and drilled on a special machine built for this purpose. No difficulty can be experienced in accurately erecting.

Gear and Drums

PARTICULAR attention is drawn to the gear and drums shown in figure 4.

These drums are made of iron with machine scored grooves. This construction is a marked improvement over the wood or cast groove drums.

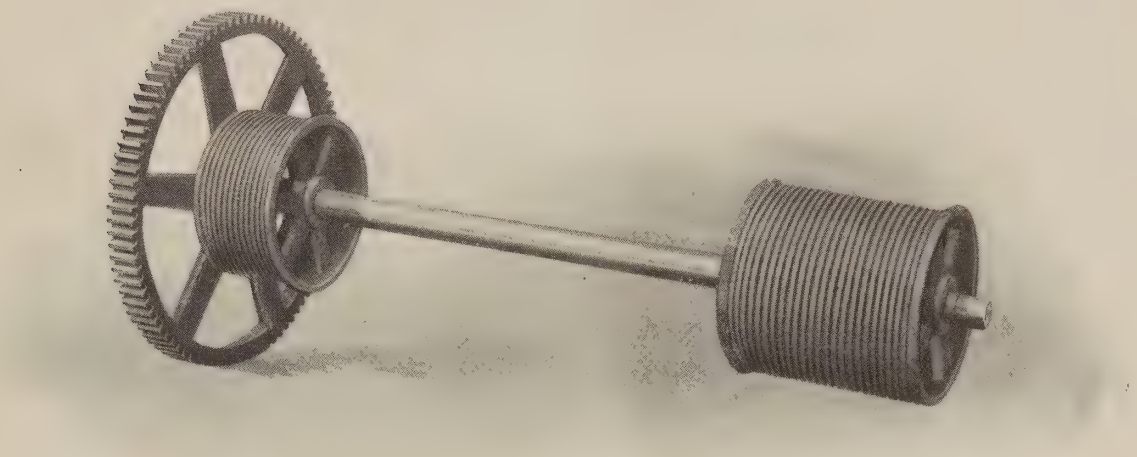


Figure 4. Gear and Drum.

Another indication of Otis quality is shown in figure 5.

This is the steel anti-friction roller bearing in which all shafts are mounted, thus making a smooth and easy running elevator instead of the usual *"Man Killer."*

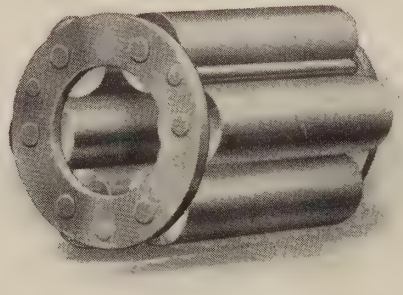


Figure 5. Roller Bearing.

Rope Wheel

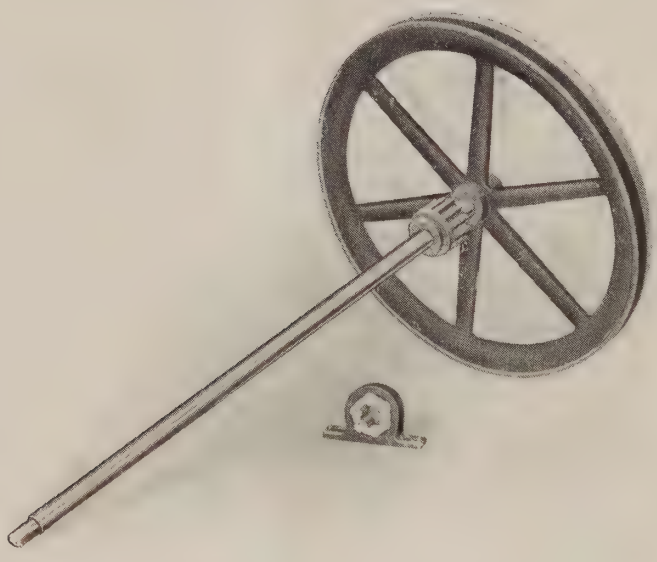


Figure 6. Rope Wheel.

THE parts shown in figure 6 are the Rope or "Pull" Wheel and Pinion. These are accurately made and mounted on a heavy steel shaft. The periphery of the Rope Wheel, on which the brake operates, is accurately machined insuring a positive and easy stop.

Brake

Figure 7. 4-A Brake

Realizing the importance of the brake every care has been taken to provide *Otis Elevators* with the best possible. The illustration (figure 7) shows the cam or rocker style—(used with the 4-A elevator) a type which has proven most safe and efficient. The brake is made substantially throughout and the shoe is lined with leather to insure quietness of operation.

Instructions

WE give below a fac-simile of our Standard Erecting Instructions which we send out with every 4-A elevator. With these instructions also go erection drawings, showing the purchaser the best and most economical way in which to erect.

FORM 715

OTIS ELEVATOR COMPANY

DIRECTIONS FOR ERECTING
HAND POWER ELEVATOR
SIZE No 4-A

Before commencing work, be sure that the openings in the different floors are PLUMB, and that dimensions agree with those indicated on erection plan

GUIDE POSTS

After locating center line of opening (front to back) place the main guide posts on counterweight side in position. As the erecting plan shows, the side of this post next to the counterweight should be 4 ¼ inches from the center line of opening, and should project into opening 4-⅛ inches

The guide posts (usually furnished by purchaser) are 5-½" x 5-¼" (except in upper story, which are 5-½" x 7" and are shipped with elevator) The face of these upper posts should be flush with those placed in lower stories

Next, place weight post in position, taking proper measurement from erection plan after which the main guide post on opposite side of hatchway should be placed Care should be taken to have the measurement between these posts exactly in accordance with the erection plan. A gauge giving this exact measurement is sent with each elevator and will be found attached to one of the posts

GEARING

The gearing should now be placed and care taken to have shafts revolve freely in the roller bearings. Attach all guide strips with exception of about eight feet in the lower story, put platform together and place in proper position.

ROPES

The cables should now be secured by means of the clamps inside of drums and to the eye bolts on platform The lifting cables should be even in length and the same allowance made for take-up at eye bolts

Place hand rope in place; the post in lower story should be slotted as shown in erecting plan, and before splicing this rope have it when hanging free reach about midway of the slot so that in case of shrinkage the rope will not bind against the post. Place brake rope in position, passing around the two small sheaves at lower landing Raise platform to upper landing and attach guide strips at bottom

COUNTERWEIGHTS

Place counterweights in guides, with a 12 inch block underneath attach counterweight cable, lower platform, and remove block under weight

Bring platform level by adjusting eye bolts to which lifting cables are attached

SAFETY DEVICE

The trip rods at each side of platform should be evenly adjusted by means of adjusting nuts at top of each rod The lower end of each rod is fitted with a special washer (No 1983), holding a coil spring (No 723) the rod passing through bracket (No 1975) The adjustment of each rod should be such that the washer just touches the safety dog (No 1969) Be positive that safety dogs clear the guide strips

GENERAL ADJUSTMENTS

Be careful to tighten all bolts and nuts, and, before using, go carefully over the joints of guide strips, leaving them perfectly smooth For lubricating guide strips use a good quality of hard grease (not containing rosin.) Examine brake to see that shoe clears rim of wheel when released All parts should operate freely, without binding or unnecessary friction

No. 2 Center Lift
Hand Power Elevator

THE No. 2 is a new type of elevator expressly designed for heavy loads and hard service. To meet these requirements we furnish a heavy steel frame car (with ample counterbalance) and gearing of the highest efficiency.

We strongly recommend the sidepost arrangement shown in illustration. When conditions are such that the posts must be placed in the corners of hatchway, we can furnish special construction, for which drawings are necessary in each case to show size of hatchway required.

The illustration on the opposite page shows the construction to be a radical improvement over the old-fashioned "Wooden Type."

Specifications for the above are as follows:

Winding Machine
- Rope or Pull Wheel
- Shafts and Gearing
- Iron Drums
- Roller Bearings
- Steel Band Brake

Overhead Frames

Counterweights
- Adjustable

Platform—Steel Frame
- Safety Device

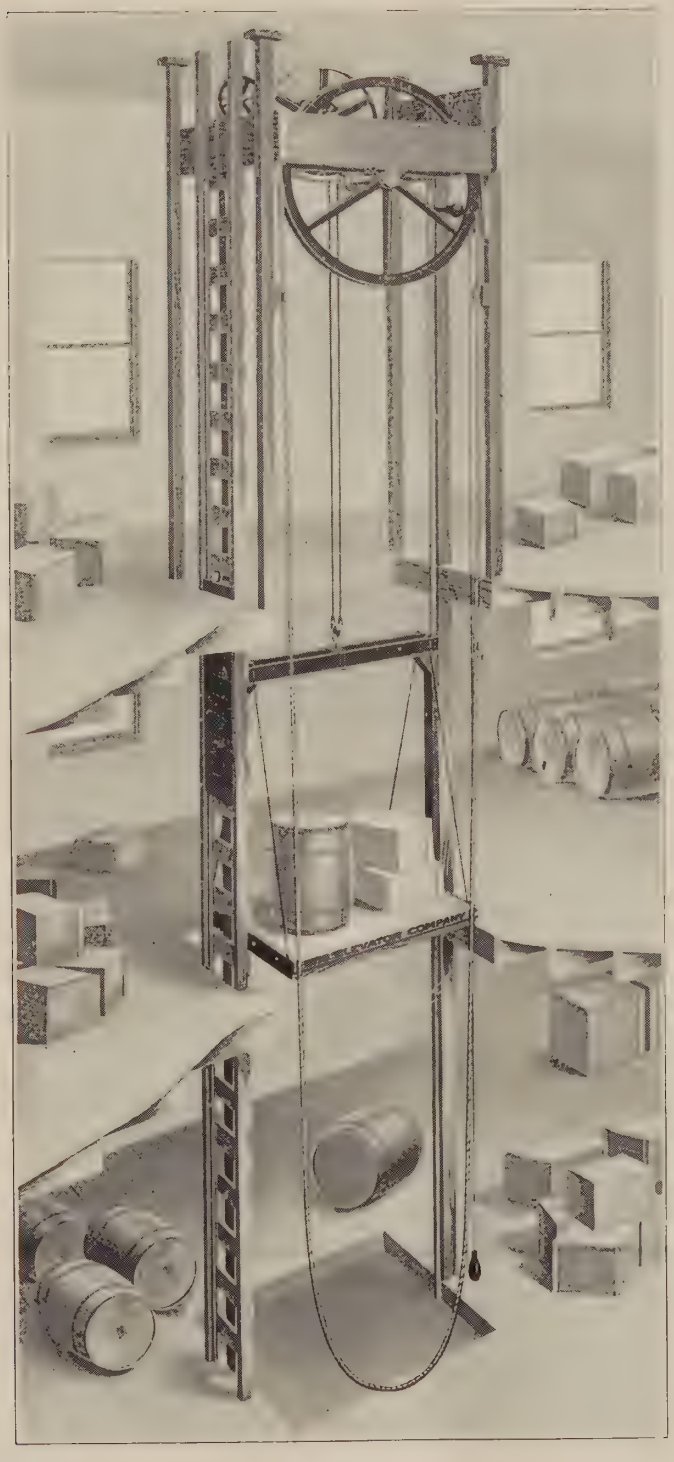
Guide Strips
- Maple

Ropes
- Two ½" Iron Lifting Cables
- One ½" Iron Weight Cable
- One 1⅛" Manila Hand Rope
- One ½" Brake Rope

We furnish complete drawings for erecting.

No. 2 Center Lift
Hand Power Elevator

Capacities 1500, 2000, 2500 and 3000 lbs.



STANDARD SIZES

Postwise		Front to Back	Postwise		Front to Back
4′ 0″	x	5′ 0″	5′ 0″	x	7′ 0″
4′ 0″	x	6′ 0″	6′ 0″	x	6′ 0″
5′ 0″	x	5′ 0″	6′ 0″	x	7′ 0″
5′ 0″	x	6′ 0″	7′ 0″	x	7′ 0″

No. 1 Carriage Type Elevator

THE No. 1, commonly called the "Carriage Elevator", is designed for purposes where the articles handled are large in size but light in weight. This type is used extensively in implement houses, livery stables, barns, etc.

Particular attention is called to the channel side rails on the platform; this makes a most rigid construction. Another important feature (to be found on all Otis Elevators of this type) is the bevel or sloping edges of the platform. This permits of an installation without the usually required pit, thus saving not only expense of erection, but also the necessity of cutting or otherwise disfiguring the lower floor.

Specifications for the above are as follows:

Winding Machine
- Rope or Pull Wheel
- Shafts and Gearing
- Iron Drums
- Roller Bearings
- Steel Band Brake

Ceiling Sheaves and Hangers

Supports for Winding Machines

Counterweights
- Adjustable

Platform
- Flat Bottom
- Channel Side Rails

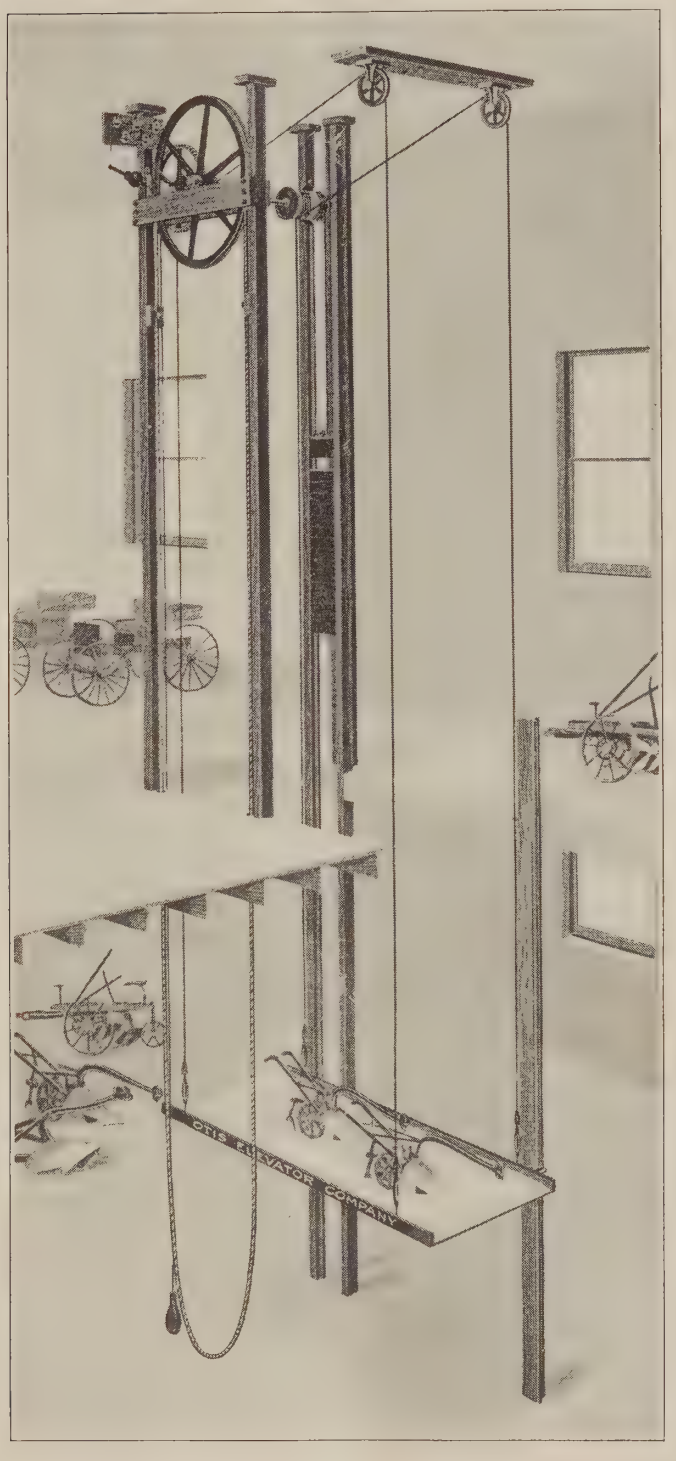
Guide Strips
- Maple

Ropes
- Four ½″ Iron Lifting Cables
- One ½″ Iron Weight Cable
- One 1⅛″ Manila Hand Rope
- One ½″ Brake Rope

We furnish complete drawings for erecting.

No. 1 Carriage Type Elevator

Capacities 1500 and 2000 lbs.



STANDARD SIZES

Postwise		Front to Back	Postwise		Front to Back	Postwise		Front to Back
6′ 0″	x	12′ 0″	6′ 0″	x	14′ 0″	7′ 0′	x	14′ 0″

No. 2 Carriage Type Elevator

THE No. 2, or intermediate size of the "Carriage Type," meets the requirements of an ever-growing demand for a powerful, easy running automobile or wagon lift at a reasonable price. Its wide range of capacities, 2500, 3000 and 4000 pounds, *exclusive* of weight of car, makes this an ideal machine for general use.

Specifications for the above are as follows:

Winding Machine
- Rope or Pull Wheel
- Shafts and Gearing
- Iron Drums
- Roller Bearings
- Steel Band Brake

Ceiling Sheaves and Hangers

Supports for Winding Machine

Counterweights
- Adjustable

Platform
- Flat Bottom
- Channel Side Rails

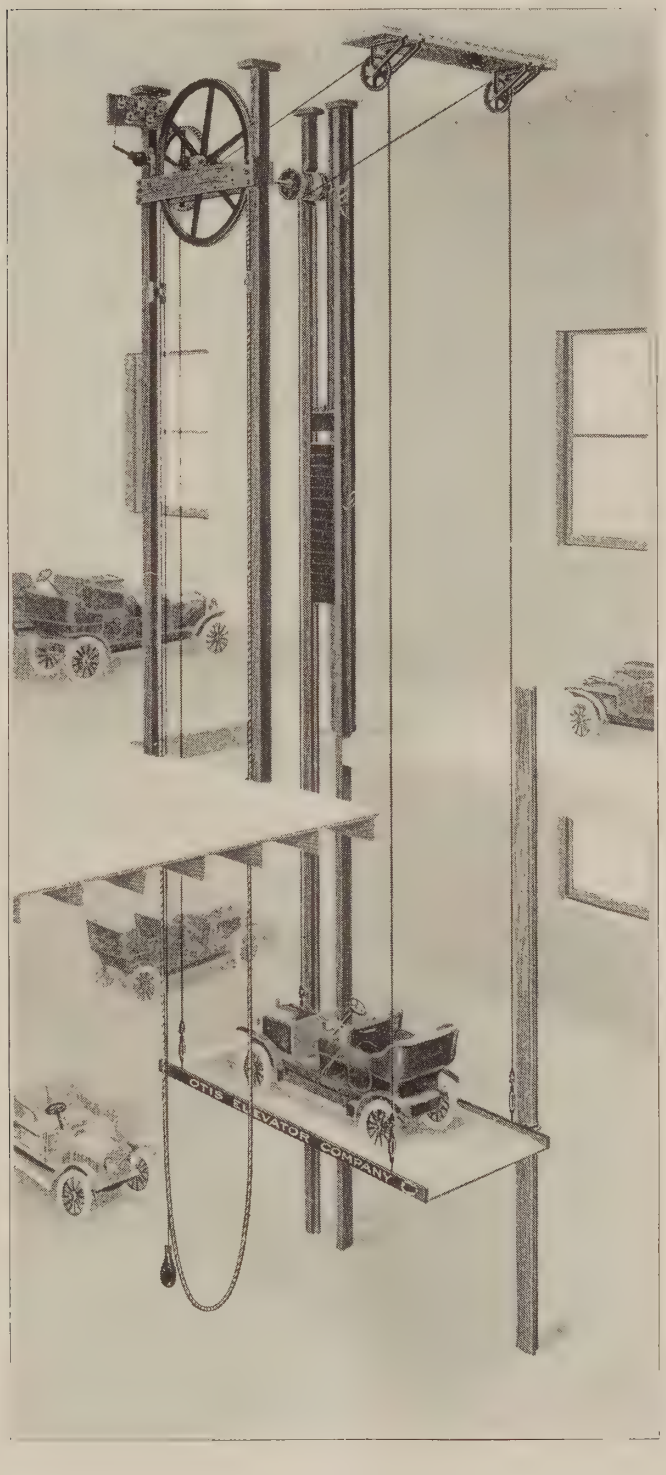
Guide Strips
- Maple

Ropes
- Four $\frac{9}{16}$" Iron Lifting Cables
- One $\frac{9}{16}$" Iron Weight Cable
- One 1 $\frac{1}{8}$" Manila Hand Rope
- One $\frac{1}{2}$" Brake Rope

We furnish complete drawings for erecting.

No. 2 Carriage Type Elevator

Capacities 2500, 3000 and 4000 lbs.



STANDARD SIZES

Postwise		Front to Back	Postwise		Front to Back
6′ 0″	x	12′ 0″	7′ 0″	x	16′ 0″
6′ 0″	x	14′ 0″	8′ 0″	x	16′ 0″
7′ 0″	x	14′ 0″	8′ 0″	x	18′ 0″

No. 3 Carriage Type Elevator

THE lifting capacity and ease of operation of this elevator are increased materially beyond the range of the ordinary elevator of this general type by the adoption of a *Double Reduction Gear,* the use of which, combined with high-class workmanship, enables us to put out a machine to meet the maximum necessities of garage service.

If you wish to convert the second story of your garage into a "Money Maker" write us for prices and further particulars.

Specifications for the above are as follows:

Winding Machine
- Rope or Pull Wheel
- Double Gearing
- Iron Drums
- Roller Bearings
- Steel Band Brake

Ceiling Sheaves and Hangers

Supports for Winding Machine

Counterweights
- Adjustable

Platform
- Flat Bottom
- Channel Side Rails

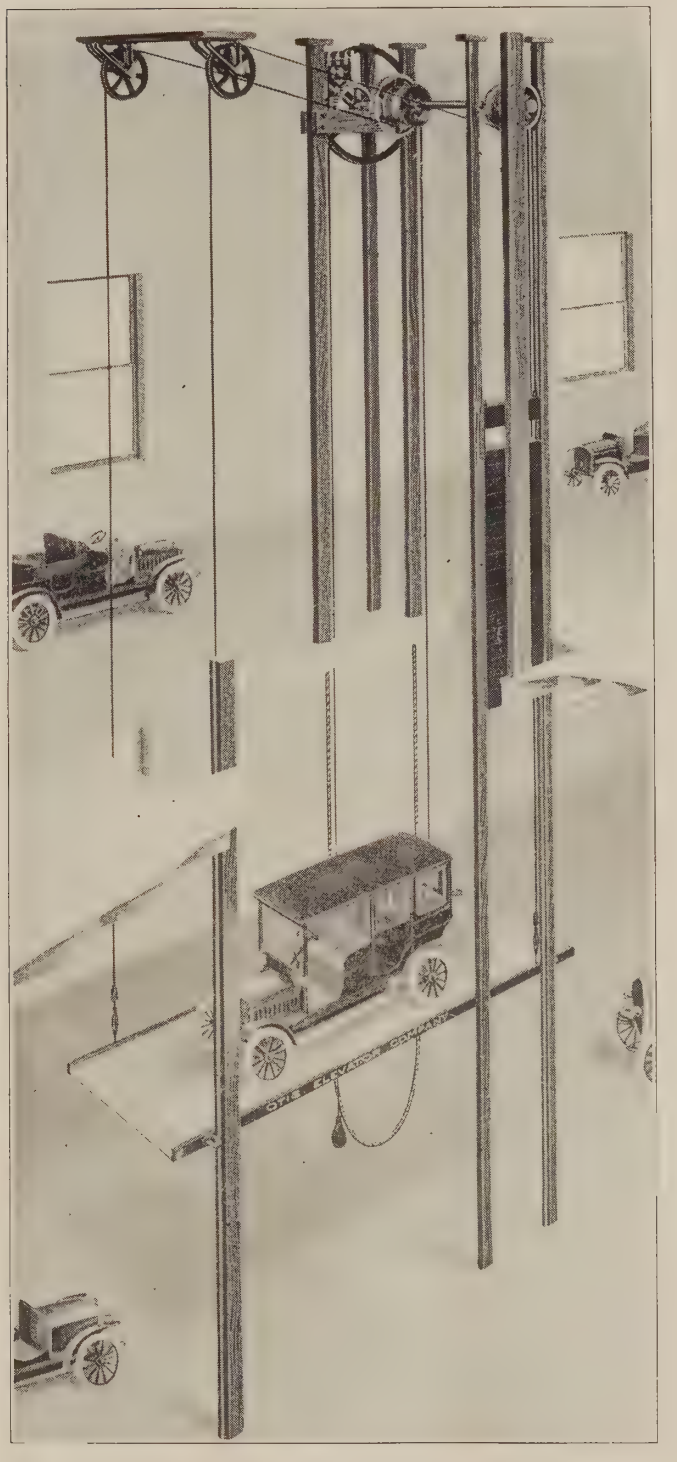
Guide Strips
- Maple

Ropes
- Four 5/8" Iron Lifting Cables
- One 5/8" Iron Weight Cable
- One 1 1/8" Manila Hand Rope
- One 1/2" Brake Rope

We furnish complete drawings for erecting.

No. 3 Carriage Type Elevator

Capacities 5000 and 6000 lbs.



STANDARD SIZES

Postwise		Front to Back	Postwise		Front to Back
8′ 0″	x	16′ 0″	8′ 0″	x	20′ 0″
8′ 0″	x	18′ 0″	9′ 0″	x	18′ 0″

No. 1 Basement Elevator

THE No. 1 "Basement" or "Sidewalk" Elevator is the acme of simplicity and perfection, and requires the smallest amount of space of any machine of this type yet produced.

As may be noted from the illustration on the opposite page, the angle irons, which form the guides for the platform, are also utilized for mounting the gearing.

By attaching the iron lifting cables to each side of the platform a very simple construction is obtained. With these features considerable labor is saved in erecting.

Specifications for the above are as follows:

Winding Machine
- Hand Wheel
- Shoe Brake
- Spur Gearing
- Iron Drums
- Steel Shaft
- Bearings

Platform

Guide Posts
- of Heavy Steel Angles

Overhead Sheaves

Ropes
- Two $\frac{1}{2}''$ Iron Lifting Cables

We furnish complete drawings for erecting.

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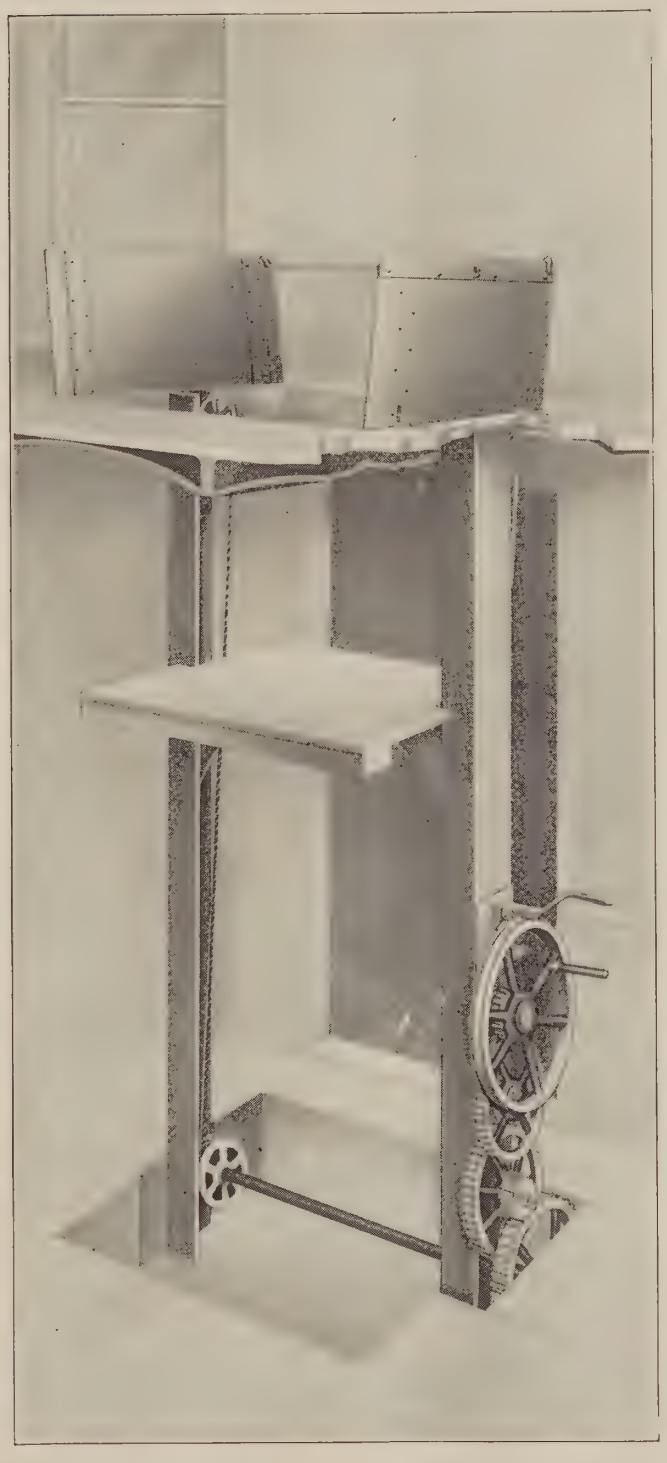
No. 1 Basement Elevator

Capacities 500 to 2500 lbs.



STANDARD SIZES

Postwise		Front to Back	Postwise		Front to Back
3′ 0″	x	4′ 0″	6′ 0″	x	4′ 0″
4′ 0″	x	4′ 0″	7′ 0″	x	5′ 0″
5′ 0″	x	4′ 0″			

No. 2 Basement Elevator

THE No. 2 "Basement" Elevator is of the same general design as the No. 1, but differs therefrom in the position of the hand wheel which is set away from the main gearing. This arrangement is necessary where the gearing is too close to the wall to admit of operating the hand wheel as it is arranged on the No. 1.

Specifications for the above are as follows:

Winding Machine
- Hand Wheel
- Shoe Brake
- Spur Gearing
- Chain and Sprocket
- Iron Drums
- Steel Shaft
- Bearings

Platform

Guide Posts
- of Heavy Steel Angles

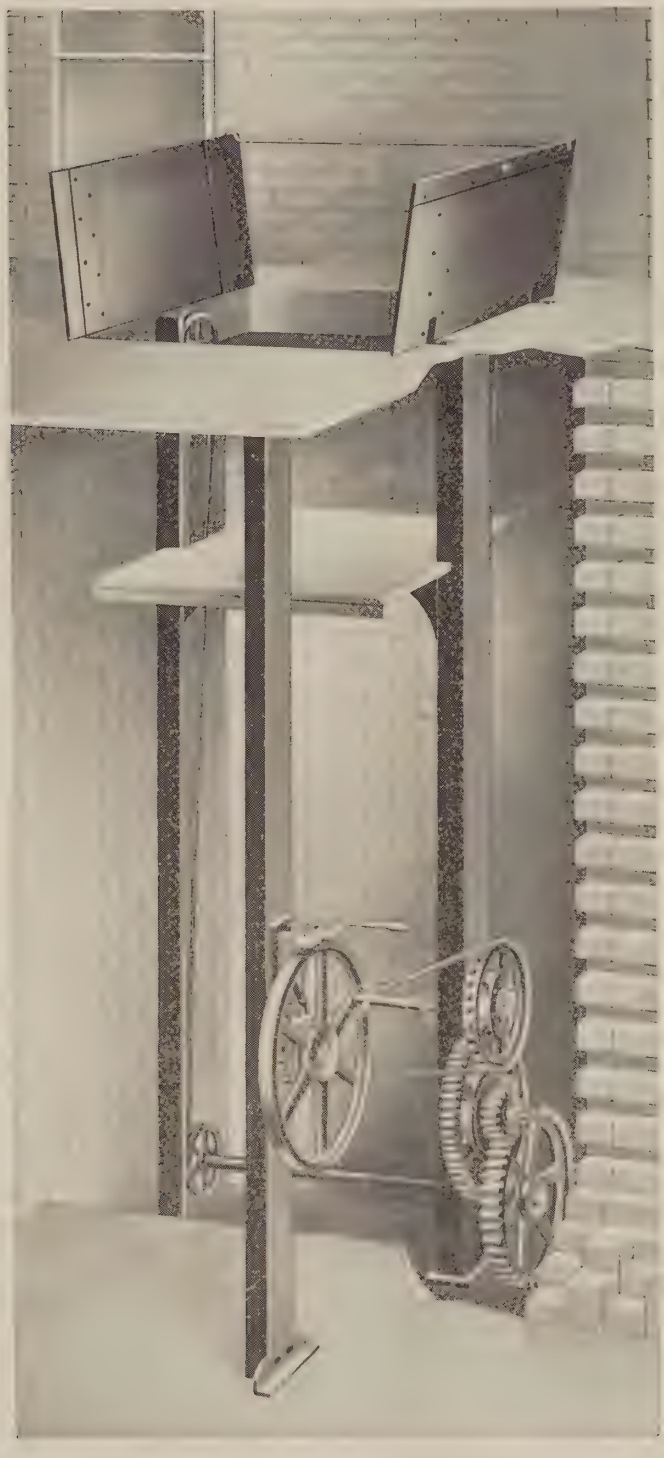
Overhead Sheaves

Ropes
- Two $\frac{1}{2}$" Iron Lifting Cables

We furnish complete drawings for erecting.

No. 2 Basement Elevator

Capacities 500 to 2500 lbs.



STANDARD SIZES

Postwise		Front to Back	Postwise		Front to Back
3′ 0″	x	4′ 0″	6′ 0″	x	4′ 0″
4′ 0″	x	4′ 0″	7′ 0″	x	5′ 0″
5′ 0″	x	4′ 0″			

Trunk Lift and Invalid Hoist

WHILE our No. 1 Center Lift, shown on page 7, can be used for residence service, it is designed strictly as a freight elevator, and as such is not equipped with all of the improvements which are usually required in residence lifts. We have therefore designed a special Hand Elevator for House Service, one that is smooth running, quiet, easily operated, and very moderate in price.

We will submit specifications and prices upon request.

LIST OF OTIS OFFICES
IN THE UNITED STATES

Albany . . . . . N. Y.
Atlanta . . . . . Ga.
Atlantic City . . . . . N. J.
Baltimore . . . . . Md.
Birmingham . . . . . Ala.
Boston . . . . . Mass.
Buffalo . . . . . N. Y.
Charleston . . . . . W. Va.
Charlotte . . . . . N. C.
Chattanooga . . . . . Tenn.
Chicago . . . . . Ill.
Cincinnati . . . . . Ohio
Cleveland . . . . . Ohio
Columbus . . . . . Ohio
Dallas . . . . . Tex.
Denver . . . . . Colo.
Des Moines . . . . . Iowa
Detroit . . . . . Mich.
Erie . . . . . Pa.
Fort Worth . . . . . Tex.
Grand Rapids . . . . . Mich.
Harrisburg . . . . . Pa.
Harrison . . . . . N. J.
Hartford . . . . . Conn.
Houston . . . . . Tex.
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